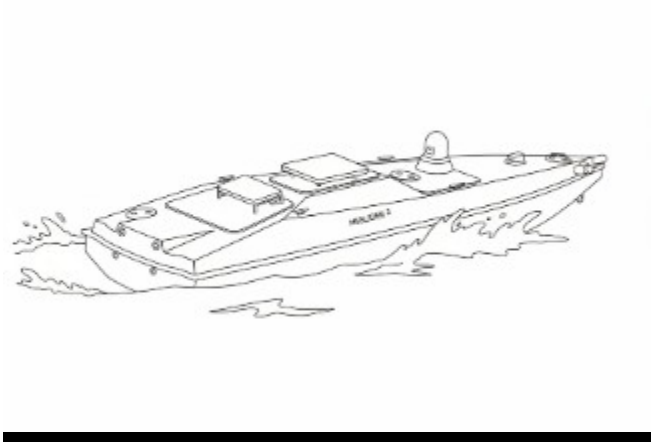
MAGURA V5 / V6P / V7



IDENTITY & DESIGNATION

Official Designation: MAGURA V5 (Maritime Autonomous Guard Unmanned Robotic Apparatus V-type, Version 5); also V6P (multirole/patrol) and V7 (enlarged, missile-armed)

Manufacturer: SpetsTechnoExport (STE) — Ukrainian state-owned arms trading enterprise; produced for HUR (Main Directorate of Intelligence of the Ministry of Defence)

Country of Origin: Ukraine

Year Introduced: Development announced Nov 2022; first exhibited IDEF 2023 (Istanbul, Turkey, Jul 2023); first confirmed combat use May 2023 (attack on Ivan Khurs)

Development Status: IN PRODUCTION — Up to 50 units/month production capacity; V6P and V7 variants introduced 2025

Unit Cost (est.): ~$250,000–$300,000 per V5 unit (per US Naval Institute Proceedings)

Operating Agency: HUR (Main Directorate of Intelligence); operationally assigned to 385th USV Brigade (world's first dedicated USV military unit, formed Aug 2023); elite Group 13 special unit

NATO/Allied Designation: None assigned; V6P participated in NATO REPMUS 25 exercise (Portugal, Sep 2025)

Naming: MAGURA — named after a Slavic warrior goddess

> ***NOTE:*** *The MAGURA family is operated by HUR (military intelligence), while the Sea Baby and Mamai are operated by SBU (security service). This is the intelligence community equivalent of interservice rivalry producing competing weapons programs — except both programs are actually working and sinking Russian ships. The 385th USV Brigade is the world's first dedicated unmanned surface vessel military unit. That's a doctrinal first that every navy on earth is watching.*

CLASSIFICATION

Domain: Surface Water

Category: Military / Naval Strike

Sub-Category: Multi-role Attack USV — anti-ship kamikaze (primary), ISR, patrol, mine warfare, air defense (V7), drone launch platform, search & rescue

Terminal Mode: Primarily Expendable (kamikaze ram attack with contact detonation); evolving toward Recoverable multi-role operations (ISR, patrol, mine-laying, air defense)

Expendable: Yes (kamikaze mode); No (ISR/patrol/air defense modes)

PHYSICAL SPECIFICATIONS

MAGURA V5:

Length: 5.5 m (18 ft)

Beam: 1.5 m (5 ft)

Draft: 0.4 m (1.3 ft)

Waterline Height: 0.5 m (1.6 ft) — extremely low profile

Displacement: ~1,100 kg (1.1 tons) fully loaded

Hull: V-shaped carbon fiber composite; low-profile design for reduced radar and visual signature

Payload Capacity: 320 kg (705 lbs)

Warhead: ~300–320 kg explosive charge with bow-mounted impact fuses

MAGURA V7 (2025):

Length: 7.2 m

Beam: 2.1 m

Displacement: 1.3 tons (light) / up to 3.7 tons (fully loaded)

Payload Capacity: Up to 650 kg

Armament: Integrated air defense system — 2x AIM-9 Sidewinder or R-73 (AA-11 Archer) missiles on launch rails; OR turret-mounted machine gun module

PROPULSION & PERFORMANCE

Propulsion: Waterjet drive; electric or hybrid engine (V5); 270 hp diesel engine (V7)

Cruise Speed: ~41 km/h (~22 knots)

Max Speed: 78 km/h (42 knots); burst speeds up to 100 km/h (54 knots) claimed

V7 Max Speed: 72 km/h (39 knots) fully loaded

Range: ~833 km (~450 nautical miles) — V5

V7 Range: Up to 1,500 km (~800 nm)

Endurance: ~60 hours at economical cruise speed

Seakeeping: Capable of open-water operations in moderate sea states; low-profile hull designed for stealth at expense of heavy-weather capability

> ***NOTE:*** *60-hour endurance and 833 km range means a MAGURA V5 launched from Odesa can reach Novorossiysk and loiter for days. The V7 at 1,500 km can reach any point in the Black Sea and hold station. These are not short-range harbor attack craft — they are strategic maritime platforms with endurance that exceeds most crewed patrol boats. The 78 km/h sprint speed during terminal attack gives defenders only seconds to react at close range.*

GUIDANCE, NAVIGATION & CONTROL

Navigation: GPS + INS (inertial navigation system)

Communication: Multi-channel — Mesh radio with aerial repeater drone relay; satellite communication (Starlink integration confirmed); multi-redundant to prevent single-point communication failure

Terminal Guidance: Dual electro-optical cameras (EO) for FPV-style operator-guided terminal attack; automatic target tracking capability

Autonomy Level: Semi-autonomous transit (GPS/INS waypoint navigation); human-in-loop terminal attack phase; swarm-capable (coordinated multi-unit attacks)

Swarm Capability: Yes — confirmed; supports coordinated multi-drone attacks (6 MAGURA V5s used in Ivanovets sinking)

Man-in-Loop Required: Yes for terminal attack; No for autonomous transit/patrol modes

Additional Sensors: Thermal imaging cameras; marine radar; laser rangefinder (available as modular additions)

V7 Addition: Acoustic environment monitoring system

WEAPONS & PAYLOADS

Primary (Kamikaze): 300–320 kg explosive warhead; bow-mounted impact fuses for below-waterline detonation

Air Defense (V7): 2x AIM-9 Sidewinder missiles (preferred, per HUR chief Budanov) or R-73 (AA-11 Archer) missiles; ‘Sea Dragon’ integrated SAM system

Machine Gun: Turret-mounted heavy machine gun module (optional configuration)

Mine Warfare: Mine deployment capability confirmed

ISR Only: Recoverable ISR/patrol configuration with sensors only

Drone Launch: Can serve as launch platform for aerial drones

> ***NOTE:*** *A surface drone that shoots down fighter jets with Sidewinder missiles. Read that sentence again. On May 2, 2025, MAGURA V7s shot down two Su-30SM fighters — $50M aircraft each — using AIM-9 Sidewinders. That’s a $300K unmanned boat killing $100M worth of frontline fighter jets. The cost-exchange ratio is beyond catastrophic for Russia. And the December 2024 Mi-8 shootdown with an R-73 was the first time in history a*

> *maritime drone killed an aircraft. This platform has created an entirely new category of naval warfare.*

COUNTERMEASURE VULNERABILITY PROFILE

RF Jamming: MODERATE — Multi-channel satellite + mesh radio + aerial repeater provides resilient BLOS communication. Terminal FPV phase is more vulnerable to localized jamming, but short duration of sprint attack limits jamming window. Multi-redundant comms mean loss of one channel does not terminate mission.

GPS Spoofing: MODERATE — INS backup provides dead-reckoning during GPS denial. Starlink may provide independent position reference. Operator can correct course visually via EO cameras during terminal phase.

EMI/EMC Attack: HIGH — Commercial-grade electronics in carbon fiber hull with no inherent EMI shielding. Waterjet drive electronics, GPS receiver, communication systems, and autopilot all vulnerable to directed EMI. Hull provides no Faraday cage effect. This is the primary vulnerability vector.

Microwave Attack: HIGH — Low-profile hull means close approach to target before detection, limiting microwave engagement window. However, onboard wiring and antenna systems are unshielded. Shipboard HPM systems could disable electronics during approach phase if MAGURA detected early enough.

Laser DEW: LOW — Very low profile (0.5m above waterline) in constant wave motion makes laser tracking extremely difficult. Carbon fiber hull is combustible but small cross-section and wave-induced movement degrade laser dwell time. Night operations further complicate visual/IR acquisition.

Kinetic Intercept: MODERATE — Small, fast, low-profile target at sea level. Russian Ka-25 helicopters and Su-30SM fighters have been used for strafing runs but with mixed success. Close-in weapon systems (CIWS) like AK-630 have limited effectiveness against low-profile targets in sea clutter. Cost-exchange strongly favors MAGURA ($250K) vs. any kinetic intercept method.

Net / Physical Capture: VERY LOW — 78 km/h sprint speed on open water makes physical capture impossible. Not a stationary target.

Cyber / Hack: **MODERATE —** Multi-channel encrypted communications. Starlink provides encrypted satellite link. No known identification broadcasting system. Multi-redundant design means compromise of one channel does not grant full control.

Active Camouflage Defeat: **LOW —** Extremely low visual and radar profile by design. Carbon fiber hull reduces radar return. 0.5m waterline height means the vessel disappears in moderate wave conditions. Thermal signature minimal from electric/hybrid propulsion. Night operations standard.

Overall Vulnerability Rating: MODERATE — The MAGURA V5's combination of multi-redundant communications, extremely low physical profile, high sprint speed, swarm capability, and devastating cost-exchange ratio makes it exceptionally difficult to counter. EMI/EMC exploitation remains the most promising countermeasure vector, but engagement windows are extremely short during the terminal sprint phase.

> ***NOTE:*** *Russia has tried everything against MAGURA: strafing runs with Ka-25 helicopters, Su-30SM fighter sweeps, patrol boat pickets, shore-based radar. None of it has stopped the fundamental problem: a $250K carbon fiber boat can sink a $100M+ warship. The Russian Black Sea Fleet has been forced out of Crimean ports entirely and retreated to Novorossiysk — 1,000 km from the front — and even that base has been hit. The only reliable defense Russia has found is not being at sea at all. That's sea denial achieved by a drone fleet.*

CRUISE MISSILE CONVERGENCE NOTES

The MAGURA V5 IS a sea-skimming anti-ship cruise missile by function. It transits autonomously to a target area using GPS/INS, operates at sea level (below most radar horizons — identical to sea-skimming missile flight profiles), and executes a terminal attack guided by FPV camera with operator-in-loop precision. The ONLY engineering difference from an Exocet or Harpoon: it floats and uses a waterjet instead of a turbojet. The terminal attack sprint at 78–100 km/h mirrors the sea-skimming approach profile of anti-ship missiles.

Platform Evolution Convergence: The MAGURA's evolution from single-purpose kamikaze to multi-role platform (air defense, mine warfare, ISR, drone launching) directly mirrors the Tomahawk's evolution from

nuclear strike weapon to multi-mission conventional platform. The V7's AIM-9 Sidewinder integration creates the world's first autonomous anti-aircraft naval platform — a capability that traditional anti-ship missiles never achieved.

Swarm Convergence: Coordinated multi-unit attacks (6 MAGURAs against Ivanovets) replicate saturation attack doctrine traditionally associated with anti-ship missile salvos. The principle is identical: overwhelm point defenses with more inbound threats than the CIWS can engage. At $250K per unit vs. $1.5M+ per Harpoon, the swarm economics are transformative.

The MAGURA V7's ability to shoot down fighter jets with Sidewinder missiles represents a convergence endpoint that cruise missiles never reached. No anti-ship cruise missile has ever shot down an aircraft. The MAGURA V7 has. This platform has transcended the cruise missile comparison — it is now a multi-domain weapon system operating from the surface.

> ⚠ ***PETER NOTE:*** *The MAGURA is the surface-domain equivalent of what the Bober and Horynych are in the air domain. Strip the labels away and you have: autonomous navigation, sea-skimming approach, precision terminal guidance, and strategic-level impact from a platform costing 1–5% of the targets it destroys. Add the Sidewinder capability and you have something that doesn't even have a historical comparison. A $300K unmanned boat that sinks warships, shoots down fighters, lays mines, launches drones, and conducts ISR. The convergence isn't drone-to-missile anymore. It's drone-to-entire-navy.*

OPERATIONAL HISTORY

May 24, 2023: First confirmed combat use. Three MAGURA V5s attacked Russian reconnaissance ship Ivan Khurs 140 km NE of Bosporus. Ship damaged but survived.

Jul 2023: Presented at IDEF 2023 in Istanbul. CNN confirmed operational status.

Aug 2023: 385th USV Brigade formed — world's first dedicated unmanned surface vessel military unit. MAGURA V5 and Sea Baby inducted.

Nov 2023: Destroyed Serna-class and Akula-class landing craft at Russian Navy base in Chornomorske, western Crimea.

Feb 1, 2024: HISTORIC: Six MAGURA V5s sank the Tarantul-III class missile corvette Ivanovets in the Black Sea near Lake Donuzlav, Crimea. All 40 crew killed. First warship sunk by naval drones in combat history.

Feb 14, 2024: Sank the 4,000-ton Ropucha-class landing ship Tsezar Kunikov off Alupka, Crimea. Two major warships sunk in two weeks.

Aug 10, 2024: Destroyed Russian KS 701 Tunets high-speed boat near Chornomorske.

Sep 2024: Within first year of public operations: 8 Russian ships destroyed, 6 more damaged. $500M+ in damage to Russian fleet (per USNI Proceedings).

Dec 31, 2024: HISTORIC FIRST: MAGURA V5 armed with R-73 'Sea Dragon' missile shot down a Russian Mi-8 helicopter near Cape Tarkhankut, Crimea. First aerial kill by a maritime drone in history. Operated by Group 13 special unit.

Jan 2025: AIM-9 Sidewinder integration began for V7 variant.

May 2, 2025: HISTORIC: Three MAGURA V7s armed with AIM-9 Sidewinders shot down two Russian Su-30SM fighter jets 50 km west of Novorossiysk. First jet aircraft kills by maritime drones. Each Su-30SM valued at ~$50M. Crew of first jet ejected and recovered; second crew killed.

Sep 2025: MAGURA V6P participated in NATO REPMUS 25 exercise in Portugal — first Ukrainian USV in a NATO naval exercise. Two Sea Wolf variants also participated with Sea Dragon SAM system.

Ongoing: 29+ Russian vessels destroyed or severely damaged by MAGURA family. Russian Black Sea Fleet forced to withdraw from Crimean ports. MAGURA operations continuing across entire Black Sea.

> ⚠ ***PETER NOTE:*** *29+ vessels destroyed or damaged. Two fighters shot down. One helicopter killed. The Russian Black Sea Fleet — historically one of the world's most powerful naval formations — has been functionally neutralized by unmanned boats costing less than a luxury yacht. This is the most significant change in naval warfare since the torpedo. Every major navy is now redesigning its doctrine around this threat. The fact that a*

> *V6P participated in NATO exercises in Portugal means the Western alliance is already integrating this technology.*

SOURCES & CROSS-REFERENCES

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Manufacturer: SpetsTechnoExport (STE) — Ukrainian state-owned defense export company

Cross-Ref: See also: Sea Baby (SBU heavy-payload USV); Mamai / Kozak Mamai (SBU high-speed USV); Harpoon/Exocet (anti-ship cruise missile comparison); Toloka TLK-150 (Ukrainian subsurface USV); Marichka (Ukrainian AUV); Sea Wolf (SAM-armed variant); Saronic Technologies ASV family (US autonomous surface vessel comparison)